

What is claimed is:

1. An adaptive module for a housing for a cable modem termination system, the module comprising:
  - a backplane;
  - a card cage attachable to the housing;
  - an active first electronic module disposed within the card cage and electrically connected to the backplane, the active first electronic module electrically connectable to an active second electronic module disposed within the housing for communicating with the active second electronic module;
  - a backup first electronic module disposed within the card cage and electrically connected to the backplane, the backup first electronic module electrically connectable to a backup second electronic module disposed within the housing for communicating with the backup second electronic module when there is a failure within the active second electronic module; and
  - a switch/relay disposed within the card cage and electrically connected to the backplane, the switch/relay adapted to enable communication between the active first electronic module and the backup second electronic module when there is a failure within the active second electronic module.
2. The adaptive module of claim 1, wherein the active first electronic module comprises a plurality of connectors connectable to remote equipment.
3. The adaptive module of claim 1, wherein the switch/relay comprises a plurality of circuit boards.
4. The adaptive module of claim 1, wherein the backplane is attachable to the housing.

5. The adaptive module of claim 1, wherein the backplane is disposed within the card cage.

6. A housing for an electronic system:  
a first module;  
a first backplane disposed within the first module;  
first and second electronic modules disposed within the first module, each of the first and second electronic modules electrically connected to the first backplane;  
a second module attached to the first module, the second module comprising a second backplane;  
a third electronic module disposed within the second module, the third electronic module electrically connected to the first electronic module and to the second backplane;  
a fourth electronic module disposed within the second module, the fourth electronic module electrically connected to the second electronic module and to the second backplane; and  
a switch/relay disposed within the second module and connected to the second backplane, the switch/relay adapted to selectively permit communication between the third electronic module and the second electronic module when there is a failure within the first electronic module.

7. The housing of claim 6, wherein first and second electronic modules are disposed within a card cage of the first module.

8. The housing of claim 6, wherein the third and fourth electronic modules are disposed within a card cage of the second module.

9. The housing of claim 6, wherein the third electronic module comprises a plurality of connectors connectable to remote equipment.

10. The housing of claim 7, wherein the second backplane is attached to the card cage.

11. The housing of claim 8, wherein the second backplane is disposed within the card cage.

12. A housing for an electronic system:

a first module comprising a first card cage;

a first backplane disposed within the first module;

first and second electronic modules disposed within the first card cage, each of the first and second electronic modules electrically connected to the first backplane;

a second module attached to the first module, the second module comprising a second backplane and a second card cage;

a third electronic module disposed within the second card cage, the third electronic module electrically connected to the first electronic module and to the second backplane;

a fourth electronic module disposed within the second card cage, the fourth electronic module electrically connected to the second electronic module and to the second backplane; and

first

**THE**

DD  
C'

16. A method for modifying a housing containing a non-redundant cable modem termination system to add redundancy to the non-redundant cable modem termination system, the method comprising:

attaching a card cage to the housing;

inserting a second electronic module into the card cage for electrically connecting the second electronic module to the backplane and to a second electronic module of the non-redundant cable modem termination system;

SP  
A

**Attorney Docket No. 100.362US01**